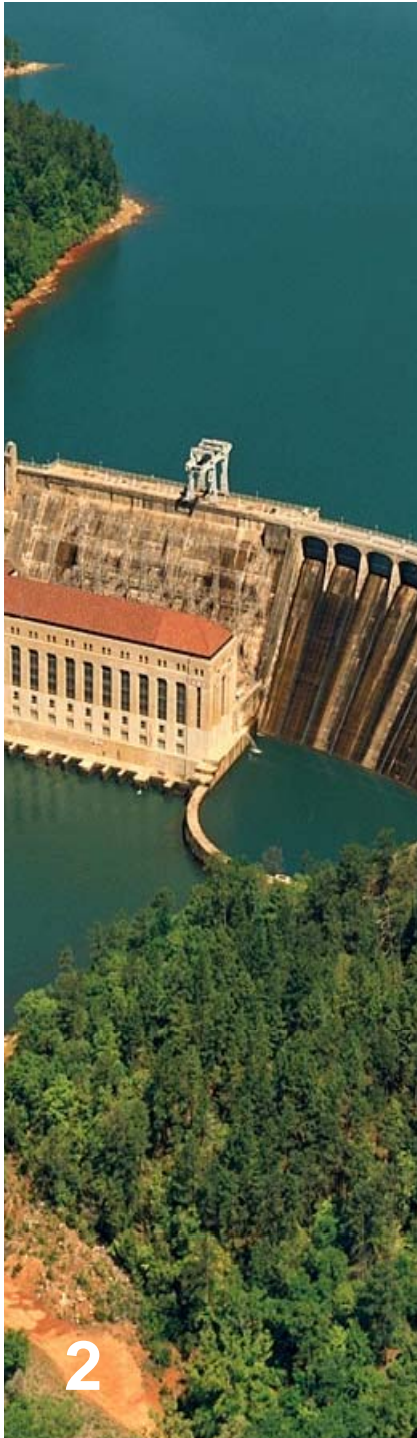




# Martin Relicensing Initial Study Report Meeting

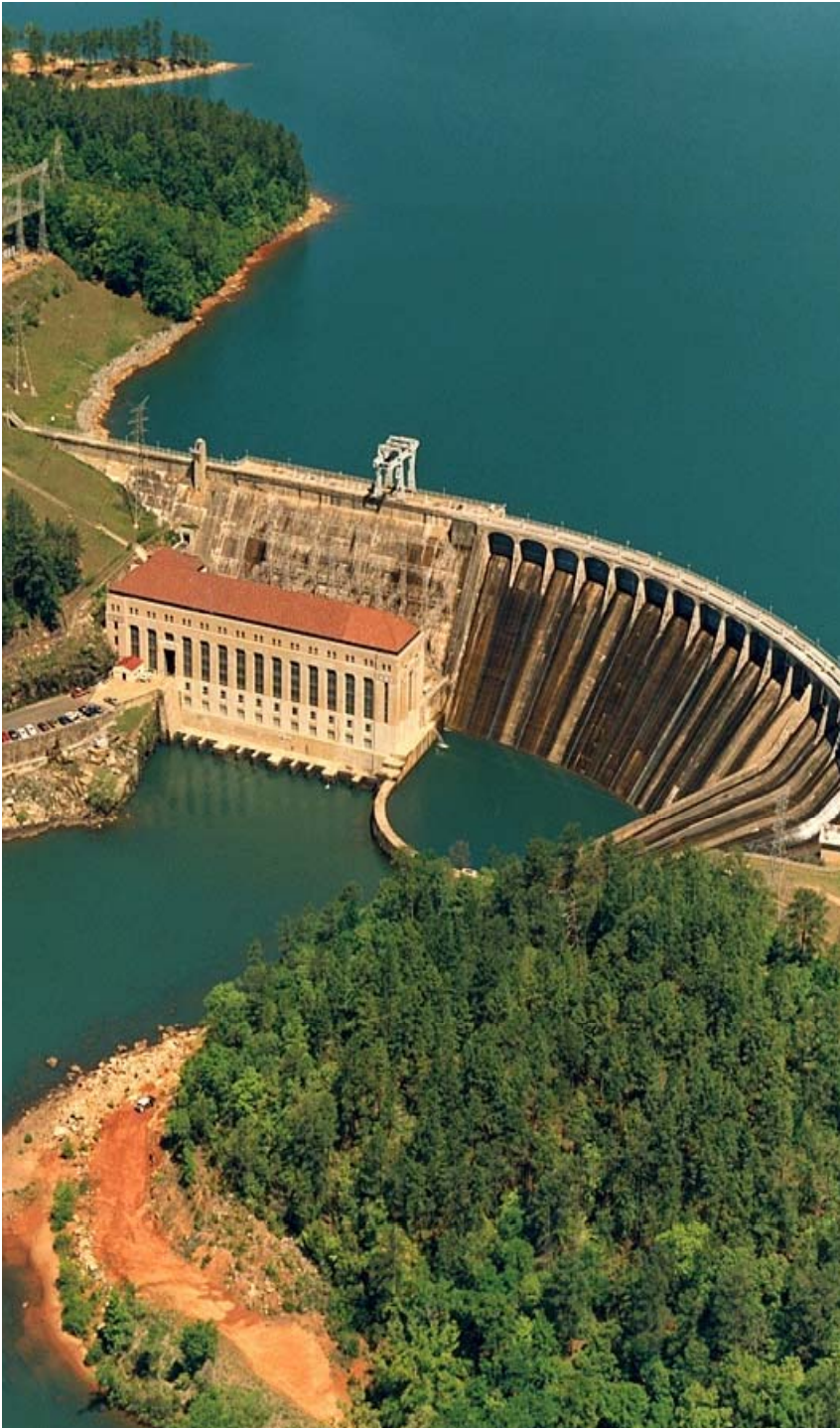
December 3, 2009





# Process Milestones

- December 18, 2009 – Alabama Power files a meeting summary
- January 18, 2010 – Stakeholders file with FERC any study disagreement or suggested modifications to the studies
- February 18, 2010 – Alabama Power files response to any disputes/study requests
- March 22, 2010 – FERC makes determination if disputes exist



## MIG 1 Fish & Wildlife

December 3, 2009



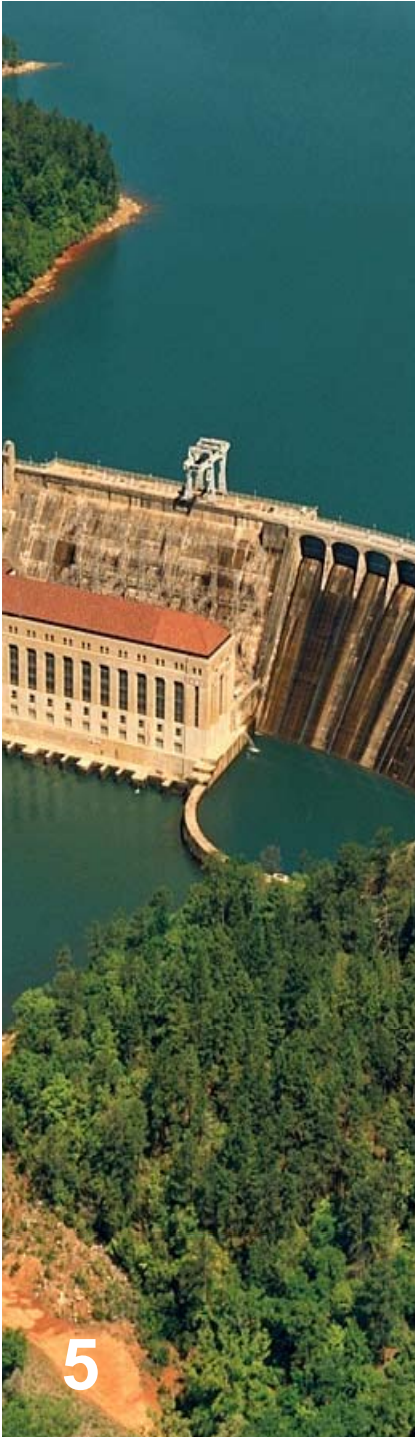


## Study Plan 1:

# Migratory Fish- Tallapoosa Basin Literature Review

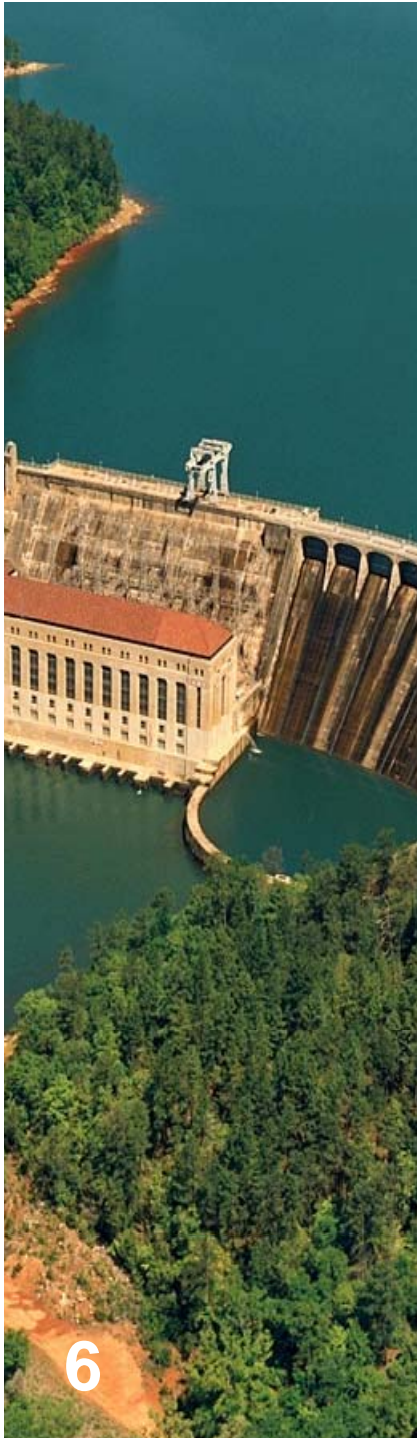
December 3, 2009





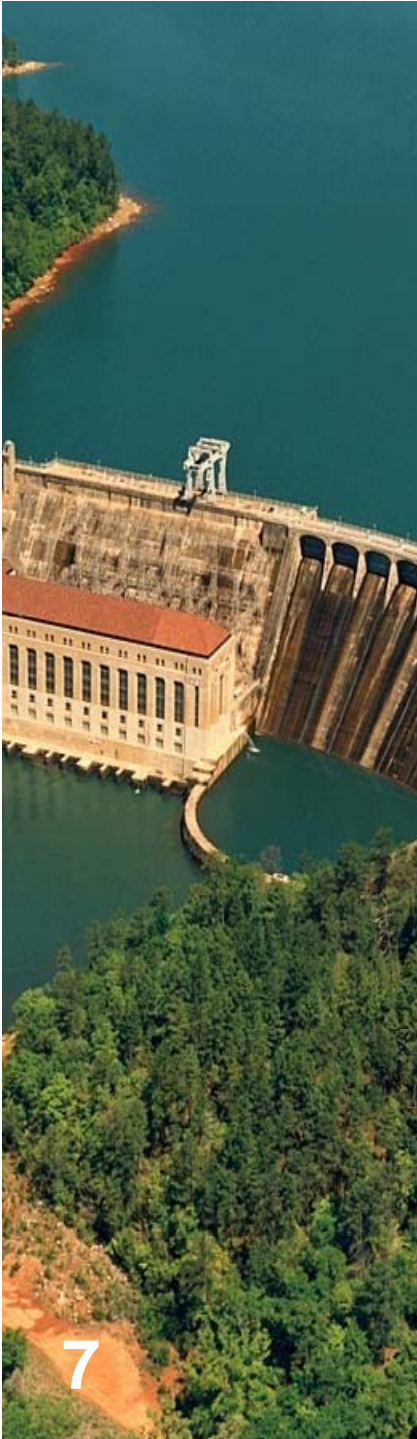
## Study Goal

- Develop a document that describes the migratory species (including American eel) that currently or historically used the Tallapoosa River including a summary of restoration plans for these species.



## Completed To Date

- Draft Tallapoosa River Fish Passage Information Document (Jan 2010)
- Research on American eel studies (U.S. and international)



# Proposed Modifications

No proposed modifications for this study

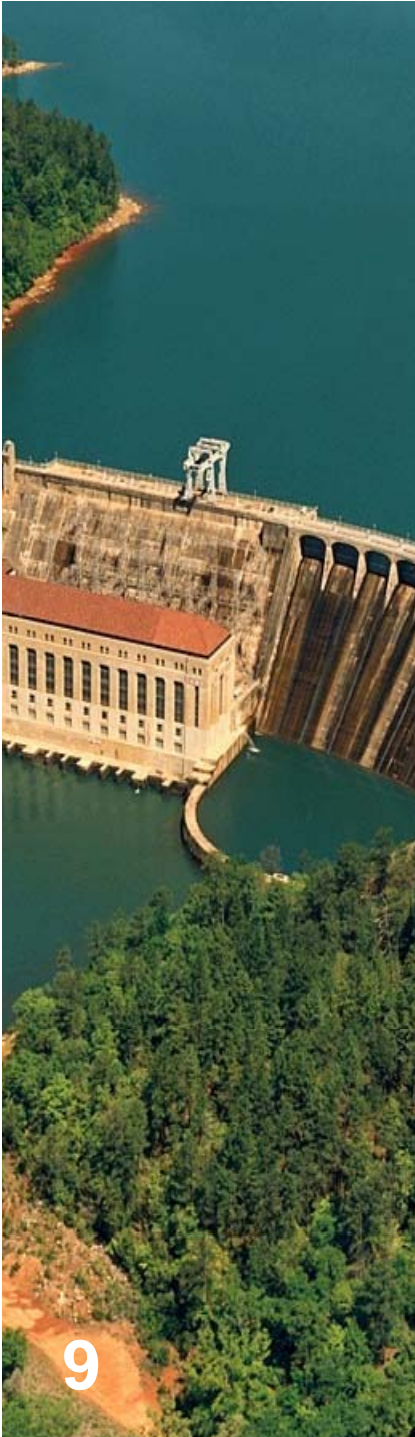


## Study Plan 2:

# Assessment of the Influence of Shoreline Modifications on Aquatic and Semi-Aquatic Species

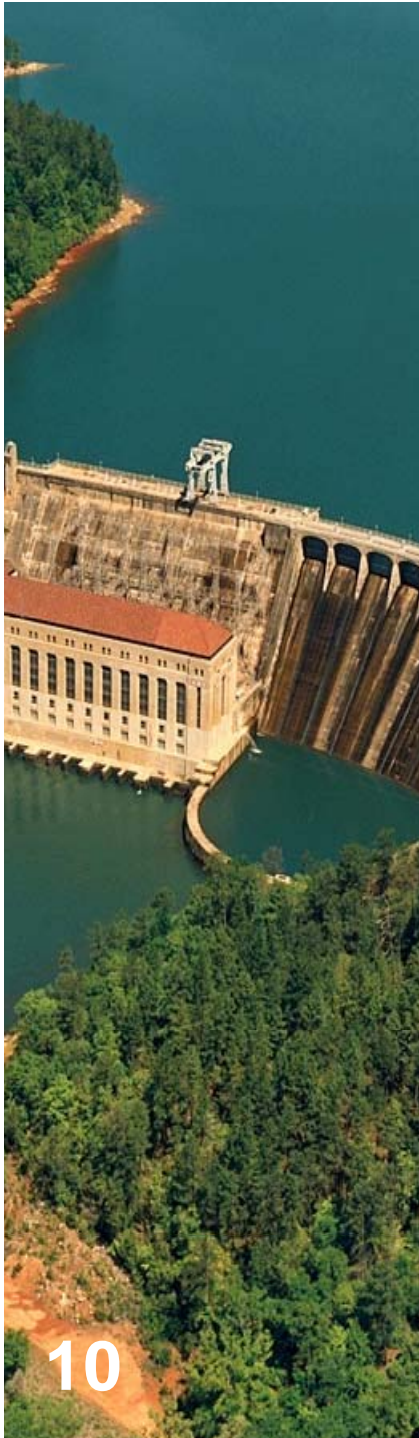
December 3, 2009





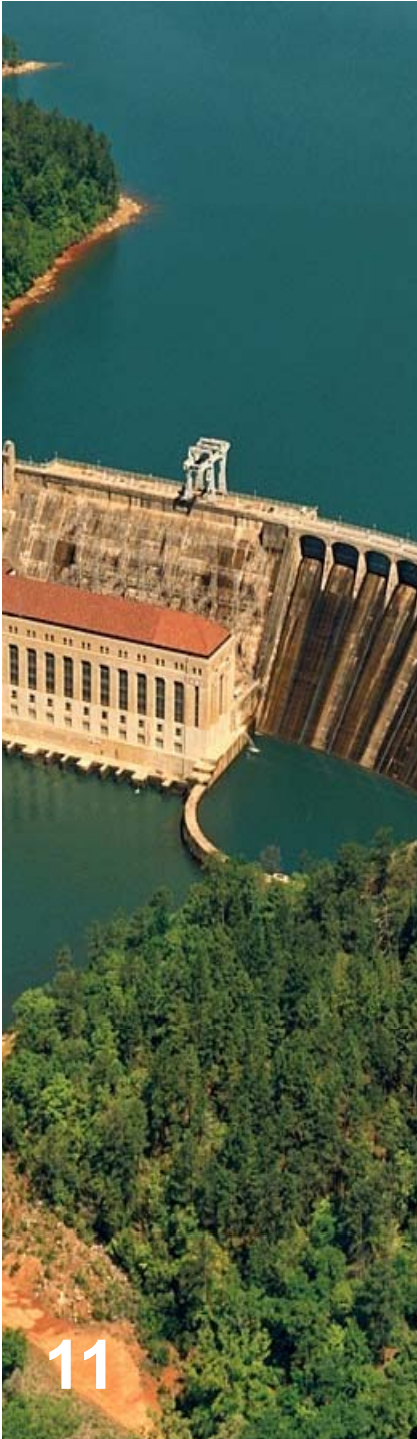
## Study Goal

- The goal of this study is to determine if various types of shoreline alterations influence aquatic and semi-aquatic species distribution in the littoral zones.



## Completed to Date

- Bailey study of semi-Aquatic species
- DeVries Study of Aquatic species



# Proposed Modifications

No proposed modifications to this study

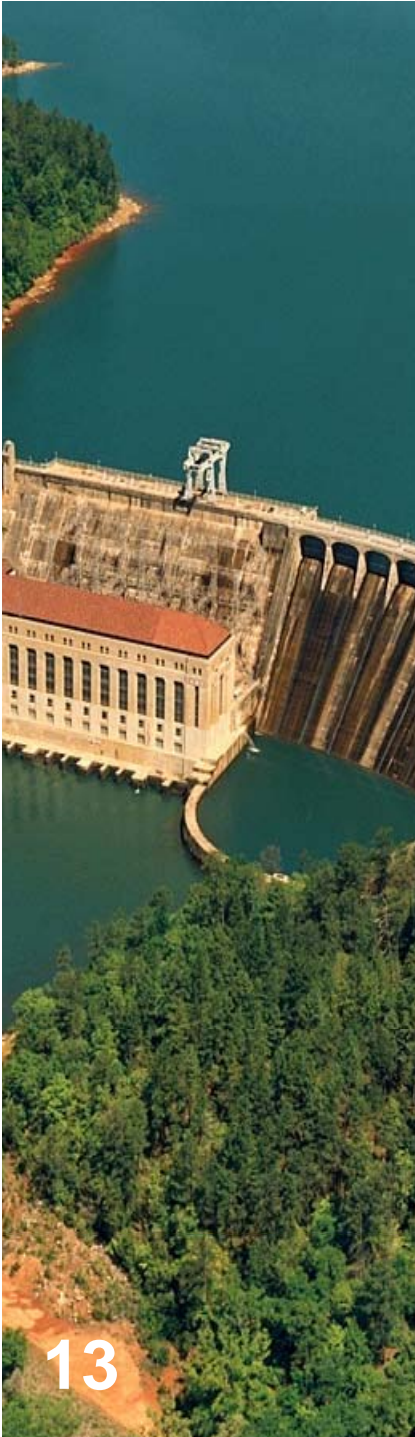


## Study Plan 3:

# Evaluation of Minimum Flows Downstream of Martin Dam

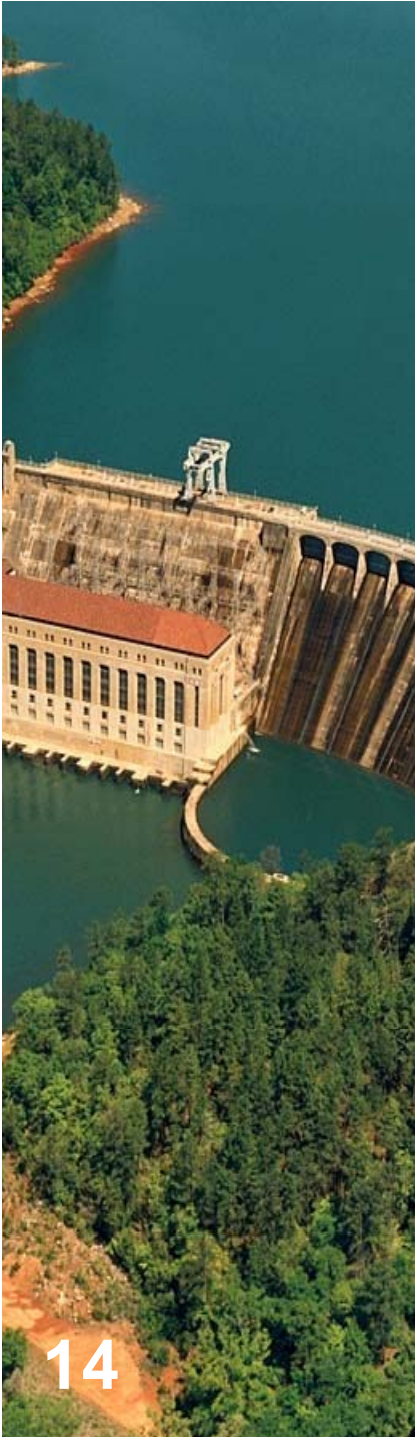
December 3, 2009





## Study Goal

- Gather environmental information for the Martin tailrace and available (current and historic) environmental information for the Tallapoosa River downstream of Thurlow Dam.



## Completed To Date

- Reviewed the Martin Dam project operations
- Reviewed the existing environmental data for the Tallapoosa River downstream of Thurlow Dam
- Performed fisheries field surveys in the Martin Dam tailrace

# Proposed Modifications

- All modifications are related to schedule
  - Mussel, snail, and crayfish sampling originally scheduled for early fall 2009 will be rescheduled to April/May 2010 (assuming river flows return to normal).
  - Distribute a draft report in July 2010
  - Distribute final report in November 2010.

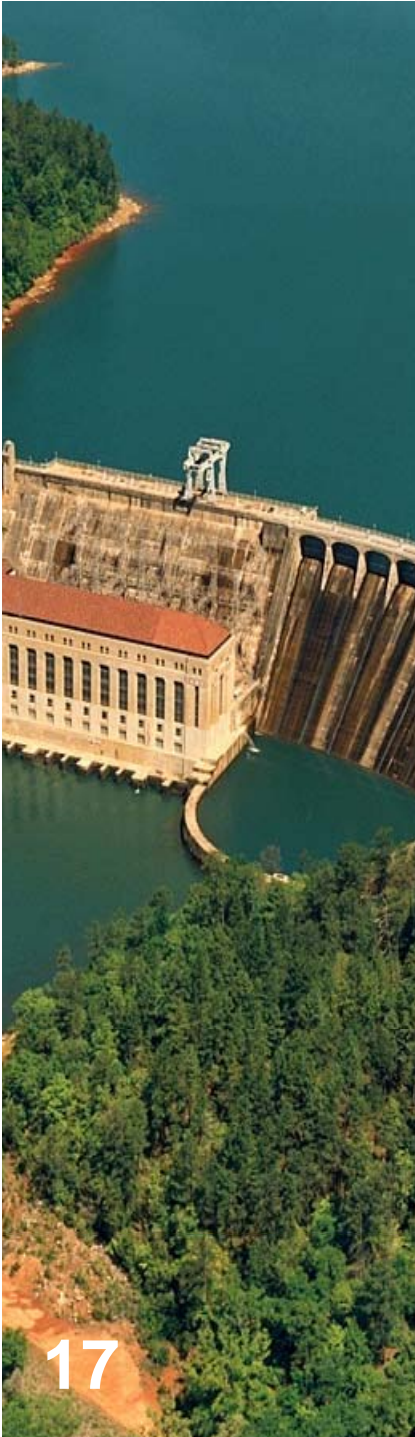


## Study Plan 4:

# Fish Entrainment and Turbine Mortality

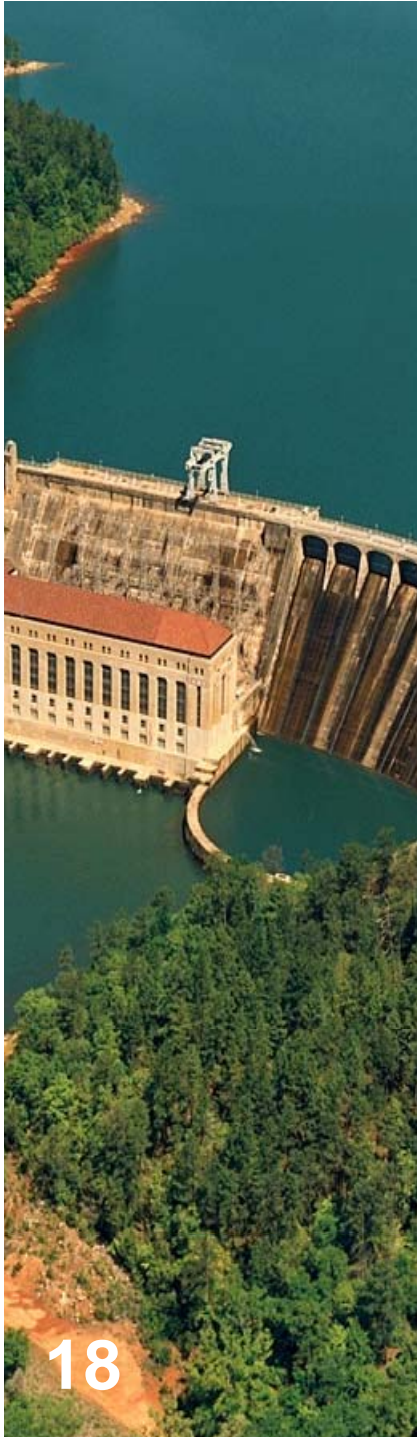
December 3, 2009





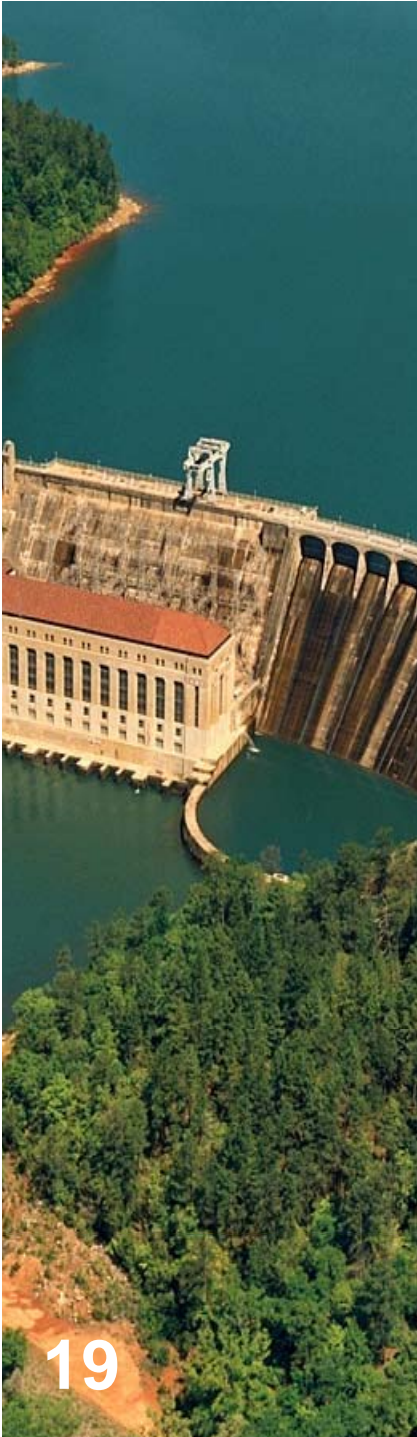
## Study Goal

- Determine the potential impacts of project operation related fish entrainment and turbine mortality on the Lake Martin fishery.



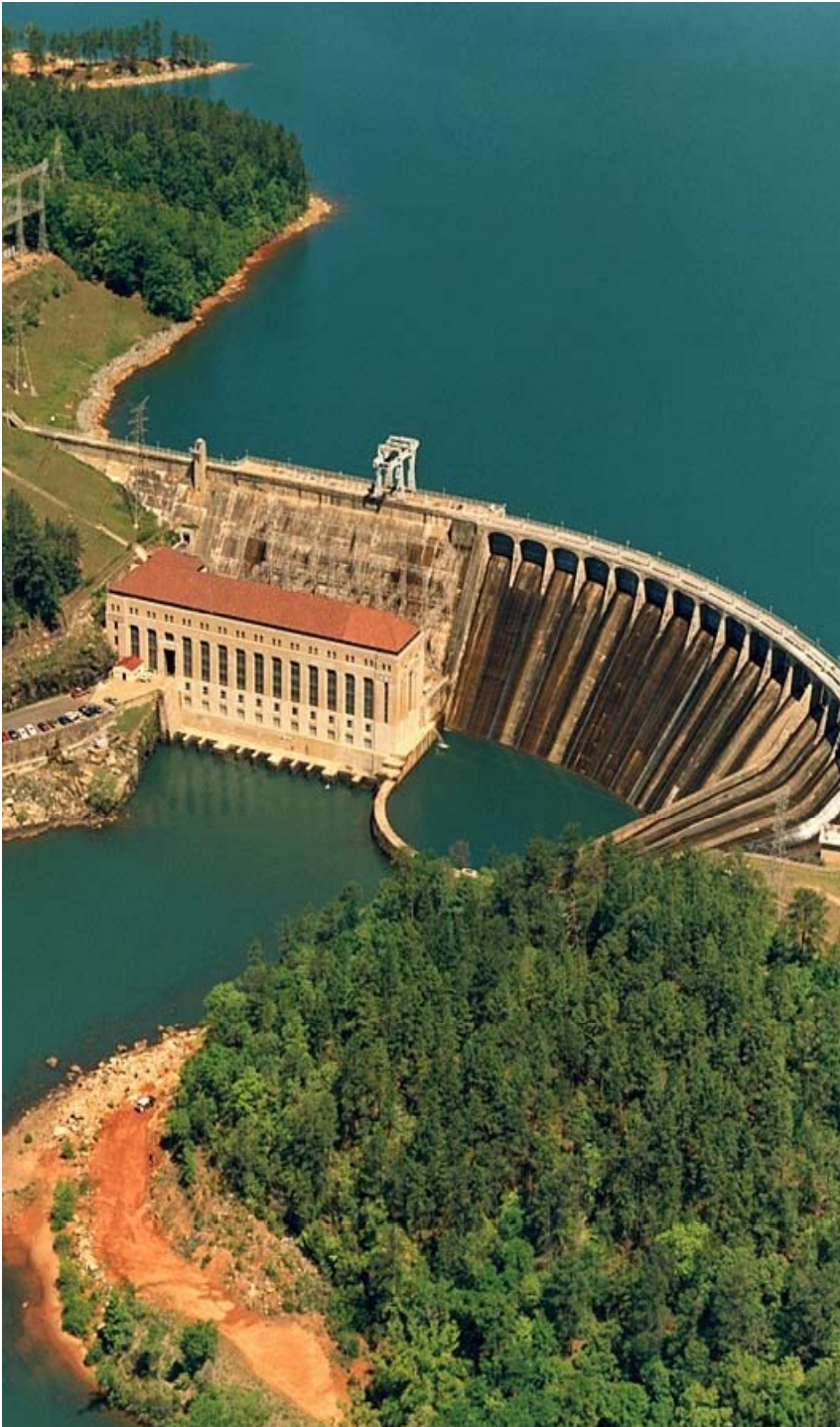
## Completed to Date

- Completed desktop analysis
- Completed three quarters of entrainment field collections
- Preliminary comparison indicates that field entrainment is much lower than desktop entrainment predictions



# Proposed Modifications

- Modifications are related to schedule
  - Distribute the draft report in April 2010

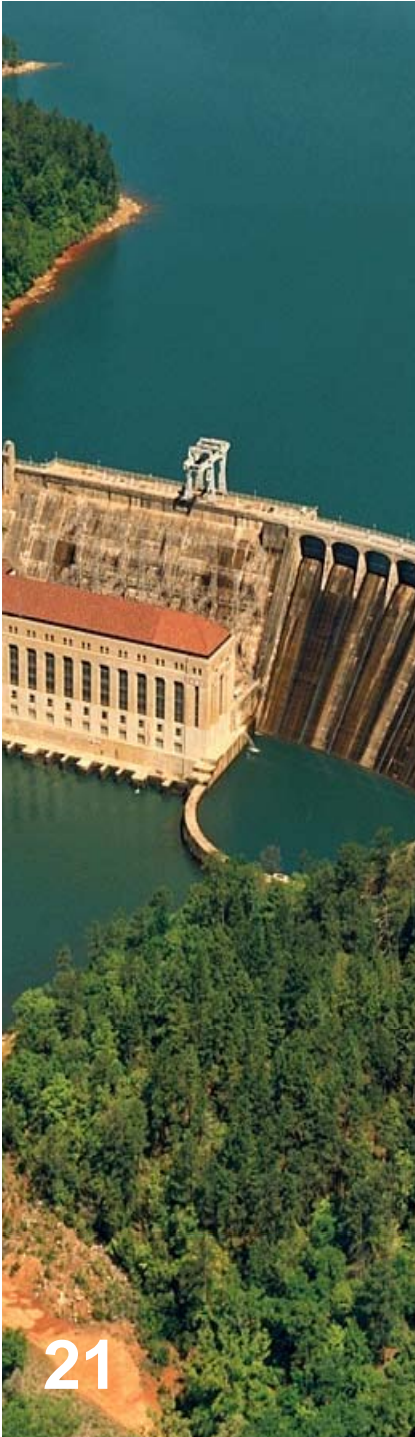


## Study Plan 5:

# Rare, Threatened, and Endangered Species Surveys

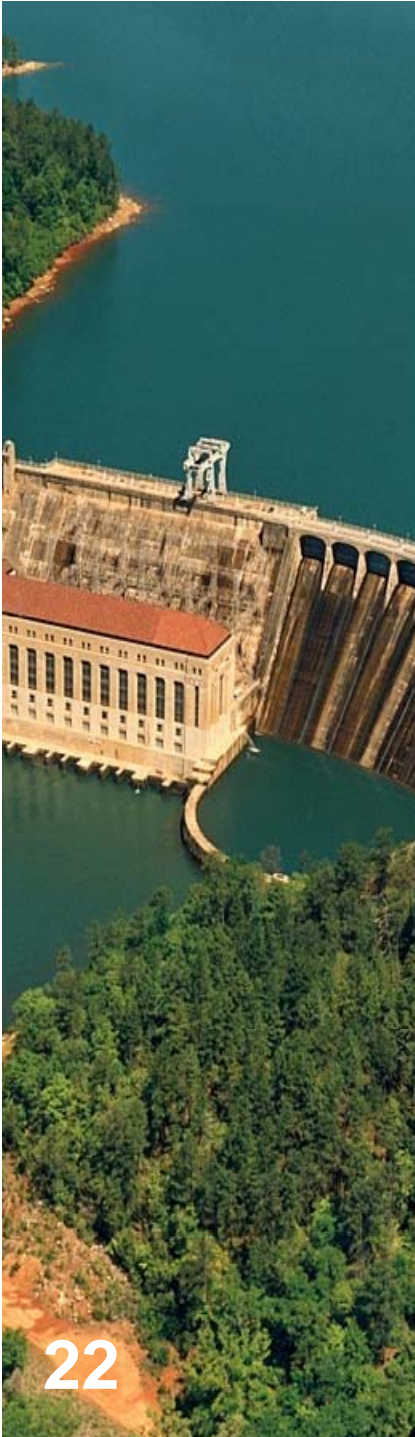
December 3, 2009





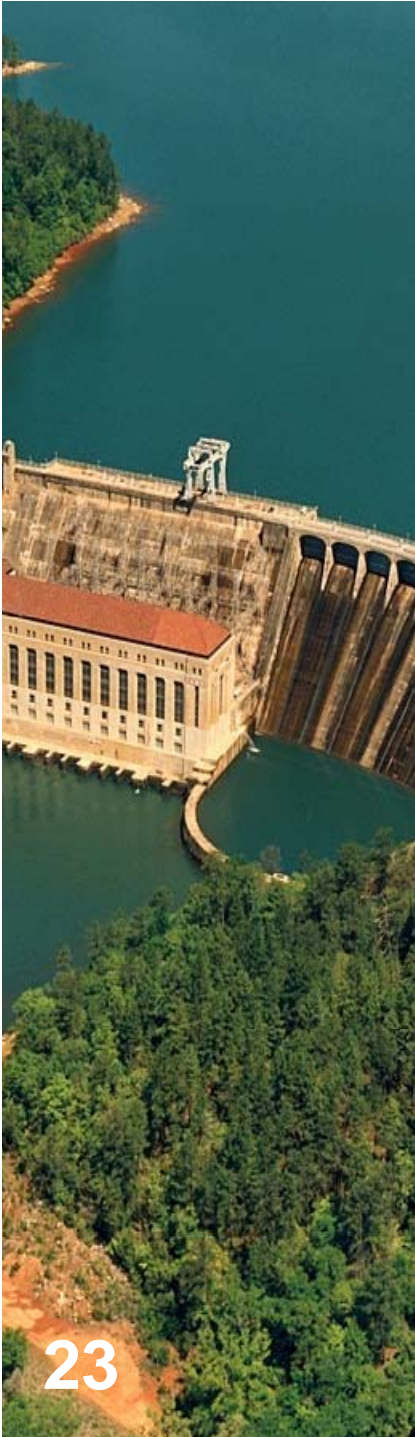
# Study Goals

- Determine T&E species present in project boundary or in Tallapoosa River downstream of Thurlow Dam
- Sample sites around Lake Martin
- Sample selected locations on Tallapoosa downstream of Thurlow Dam for aquatic T&E species
- Review historic collection records of other field collections in area



## Completed to Date

- All surveys were performed by qualified investigators.
- No federally listed fish species were collected.
- No federally or state listed snail or mussel species were collected.
- Dr. David Whetstone (Jacksonville State University) has completed the final Lake Martin Vegetation Report.



## Completed to Date

- *Amphianthus pusillus* (pool sprite)- No similar habitat was found to this in recent or prior studies in the vicinity of Lake Martin.
- *Arabis georgiana* (Georgia rock cress)- While this habitat is available, no individuals were observed on any of the sites investigated.

# Proposed Modifications

- Modifications are related to schedule
  - Complete sampling in April – June 2010
  - Distribute a draft report in July 2010
  - Distribute final report in November 2010

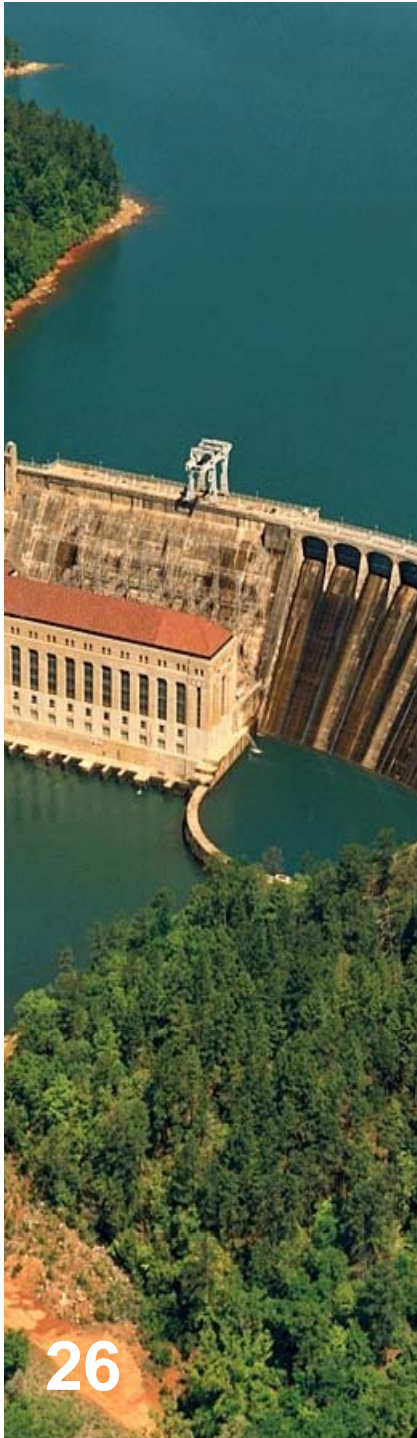


## Study Plan 6:

# Striped Bass Telemetry Study

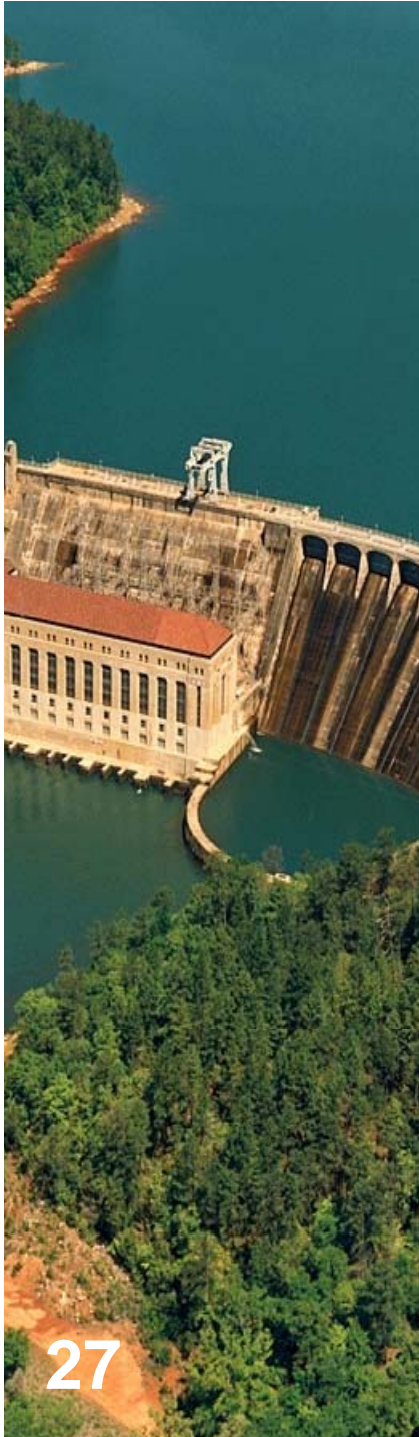
December 3, 2009





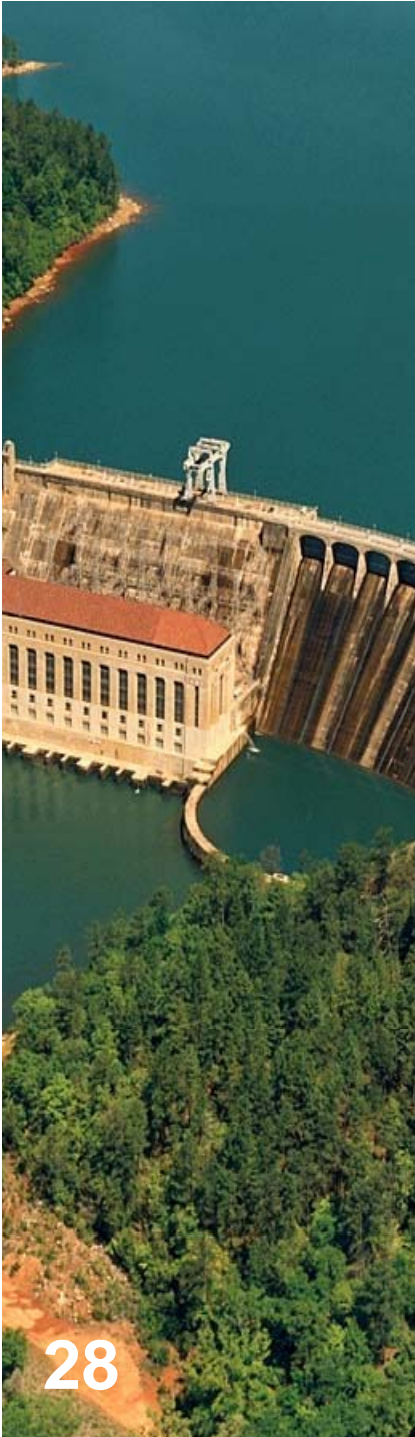
# Study Goals

- Determine the depths, temperatures, and dissolved oxygen concentrations used by adult striped bass in Lake Martin during summer and identify those locations.
- Determine the approximate volume of suitable striped bass habitat present in Lake Martin during summer and examine possible factors that may affect this volume.
- Determine the hooking mortality and behavior of adult striped bass angled during summer in Lake Martin.



## Completed to Date

- Thirty striped bass were tagged in March and April 2009 with radio and sonic tags
- Tracking began on April 22 and ended on Oct 2, 2009
- Seven profile samples were collected during July 10 – Oct 2



## Completed to Date

- Hooking mortality portion of the study
  - One attempt was made during July using five striped bass.
  - Four died within 0 to 30 minutes of capture, the last one died within 24 hours.
  - Three additional efforts were made during August, but no striped bass were caught.

# Proposed Modifications

- No direct modifications
  - Vertical profiles were not collected during June 2009 due to equipment failure.
  - All other vertical profiles and water quality data were collected per the study plan
  - This omission will not impact the results of the study.

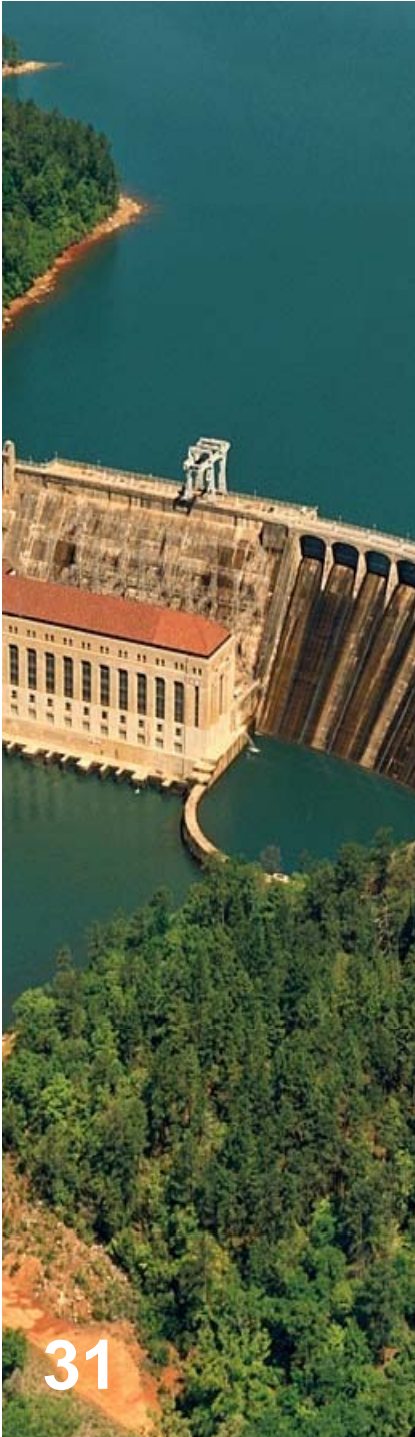


## Study Plan 7:

# Lake Martin Wildlife Management Plan

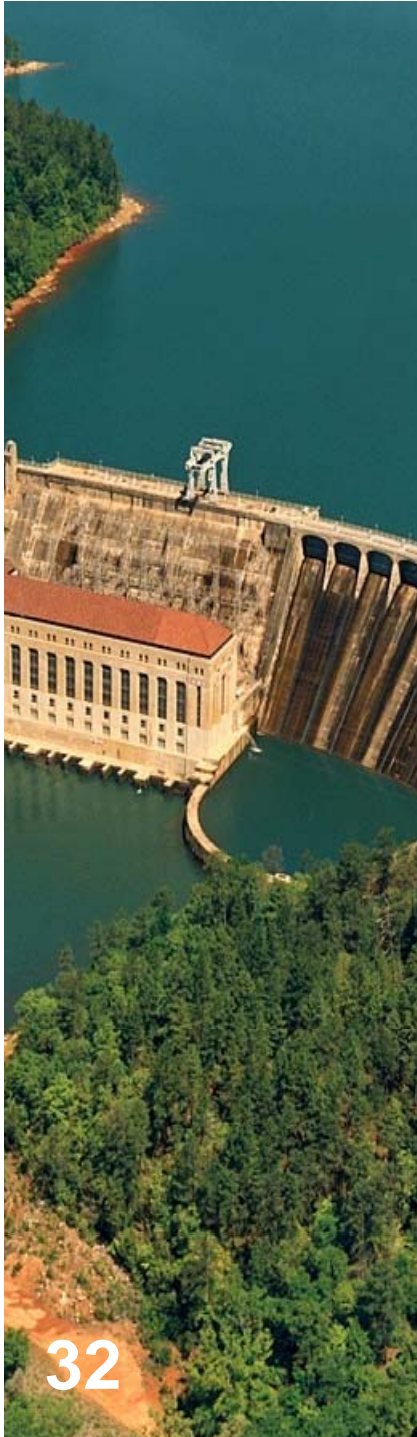
December 3, 2009





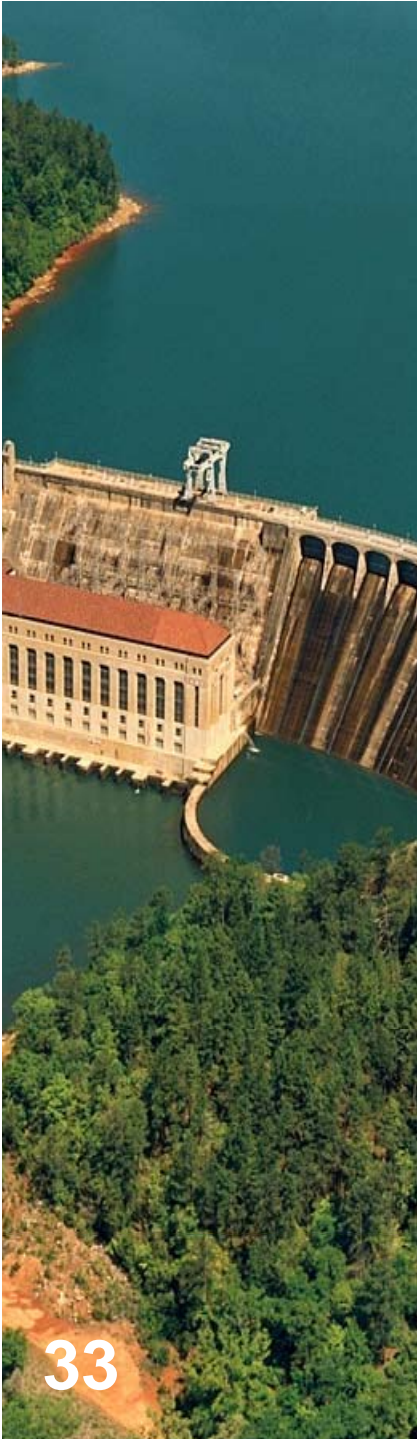
## Study Goals

- Develop a Wildlife Management Program to protect or enhance the current habitat diversity on Alabama Power project lands for native wildlife species.
- This includes a focus on the conservation, restoration, and management of longleaf pine systems on project lands.



## Completed to Date

- Compiled Alabama Power historic Forest Data
- Collected additional ground cover data
- Developed first Draft of Wildlife Management Program document



# Proposed Modifications

There are no proposed modifications.